

# Installing a Generator

Despite our best efforts to keep your electricity on year-round, inclement weather and other emergencies can arise that could disrupt your power service. When service interruptions occur, you can rest assured that our service crews will be dispatched immediately. After all, we train and prepare for outages and other emergencies every day.

In the unlikely event of an outage, a portable or permanently installed emergency power generator can provide electric service until your regular service is restored. However, as useful as they can be in an emergency, there are a number of important things to keep in mind when dealing with generators - before and during installation and when in use.

If you install a generator, please notify Alcoa Electric as soon as possible. This will prepare us in the case of sending crews to your home – there can be a danger of back-feeding into the system.

You are

*strongly encouraged* to receive verification from the manufacturer of the transfer switch that the transfer method is

**Break Before Make**, which means that it breaks contact with one source of power before it makes contact with another. This type of switch disconnects the electric load from the normal feed before it is transferred to the generator and performs the opposite function when reconnecting to the normal feed.

This way, a

**Break Before Make** switch safe-guards your home against some of the effects of "back-feeding," which may include damage to the generator or fire in the home. In addition, your generator should be installed by a licensed electrician to reduce the possibility of shock or fire hazard when the unit is in operation.

## The Danger of "Back-feeding"

Back-feeding occurs when the electricity produced from a home generator feeds back into the power line. If the back-fed voltage passes through one of our transformers, the voltage increases to a deadly level, placing the lives of AED linemen who may be working on downed power lines in grave danger.

Because back-feeding can be deadly to power crews - and can cause a fire in your home or permanent damage to your generator - it must be prevented through the installation of a **Break Before Make** transfer switch.

## **How to Choose an Emergency Generator**

First, consult with a licensed electrician to determine the appropriate size and type of generator for your needs. Then, let your electrician help you determine the best avenue for the generator-produced power to follow - either through extension cords directly to the equipment you wish to run, or into an emergency panel installed in your home. If you decide to use an emergency panel, determine the type of transfer switch to be used.

## **Tips for Safe Generator Operation**

- Your generator should be installed by a licensed electrician. Professional installation greatly reduces the possibility of shock or fire hazard when the unit is in operation.
- Read all instruction manuals and safety warnings from the manufacturer before operating the generator.
- Keep children and untrained adults away from the generator.
- If you experience any problems in operating the generator, consult a licensed electrician.
- NEVER operate gasoline-powered generators indoors, in a garage or any other enclosed area. Gasoline engines emit deadly carbon monoxide gas from their exhaust.
- Remember - all liability for the improper installation or operation of a generator rests with the homeowner.

Have questions about the safe installation and use of emergency generators? Call (865) 380-4890.